



Natural Communities of Louisiana

Flatwood Ponds

Rarity Rank: Flatwood Pond - S1/G2Q

Synonyms: Flatwoods

Ecological Systems: CES203.547 West Gulf Coastal Plain Flatwoods Pond

General Description:

- Small, natural depressional wetlands embedded within current or historical longleaf pine flatwoods/savannahs of western Louisiana
- Believed to occupy swales and depressions in ancient Pleistocene stream channels; can be linear, circular or elliptic in shape
- Size ranges from less than 1 acre to about 30 or 40 acres, with average 1 to 5 acres
- Pond depth ranges from a few inches to 5 feet in deeper ponds; small ponds are relatively shallow, while larger ponds are deeper
- Vegetation dominated by a variety of obligate and facultative wetland herbaceous species, mainly tall sedges and grasses
- Occasional trees often appearing stunted, may be present in deeper, more frequently flooded, and therefore less fire-exposed parts of ponds
- Soils are hydric, very strongly acidic, nutrient poor, silt loams
- Seasonally fluctuating water level – dry in summer and flooded the other 3 seasons causing distinct vegetation zones with species sorting out according to their relative tolerance or competitive adaptations to flooding and saturated soil conditions
- Fire maintained natural community (frequent fires during late spring/summer dry season)



Rhynchospora latifolia

Plant Community Associates

Common herbaceous species of shallow ponds or edges of deep ponds include:

Andropogon glomeratus
var. *glaucopsis* (bushy beardgrass),
Eleocharis tuberculosa (spikerush),
Rhynchospora spp. (beakrushes),
Gratiola brevifolia (hyssop),
Hyptis alata (bitter mint),
Pluchea rosea (stinkweed),
Proserpinaca pectinata (mermaid-weed),
Rhexia lutea (meadow beauty)

Aristida palustris (longleaf three-awn grass)
Coreopsis linifolia (tickseed),
Eriocaulon decangulare (pipewort),
Rhynchospora latifolia (whitetop sedge),
Hypericum galioides (St. John's wort),
Panicum virgatum (switchgrass),
Polygala ramosa (candyroot),
Hibiscus aculeatus (comfort-root),

Common herbaceous species of deep ponds include:

Amsonia glaberrima (bluestar),
Carex verrucosa,
Hibiscus moscheutos ssp. *lasiocarpus*,

Bacopa caroliniana (blue-hyssop),
Dichanthelium spp.,
Juncus effuses (soft rush),



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Ludwigia pilosa (evening primrose),

Lycopus rubellus (bugleweed),

Common herbaceous species of deep ponds continued:

Oxypolis filiformis (hog-fennel),

Panicum virgatum (switchgrass),

R. corniculata (beakrush),

Panicum hemitomon (maidencane),

Rhynchospora cephalantha (beakrush),

Sagittaria graminea (arrowhead)

Common woody species include:

Nyssa biflora (swamp blackgum),

Cephalanthus occidentalis (buttonbush),

Crataegus opaca (mayhaw),

Smilax walteri (red berry greenbriar)

Acer rubrum (red maple),

Styrax americanus (small snowbell),

Morella cerifera (waxmyrtle),

Federally-listed plant & animal species:

Picoides borealis (red-cockaded woodpecker)

Endangered; G2; S2

Range:

Lower West Gulf Coastal Plain ecoregion in the southwest and west central portions of the state.

Threats & Management Considerations:

Flatwood ponds have been reduced by 75 to 90% of the original extent. Activities causing direct impacts or destruction of flatwood ponds include construction of roads, pipelines or utilities, planting tree species, and residential or commercial development. Habitat degradation or disturbance is caused by maintenance of existing roads, pipelines and utilities, hydrological alterations (to include adjacent areas), contamination by chemicals (herbicides, fertilizers), and off-road vehicle use. Alteration of natural community composition and structure occurs with fire exclusion or inappropriate fire regime, use of chemical herbicides or fertilizers, and introduction of invasive or exotic species.



Use of appropriate management activities and developing a compatible management plan prevents destruction or degradation of this habitat type and promotes long-term maintenance of healthy flatwoods ponds. Management strategies should include:

- Use of growing season prescribed fire (spring/summer) every 1 to 3 years
- No tree planting within natural ponds when reforesting adjacent areas
- No ditching, bedding, plowed fire lines or other soil disturbance within ponds or adjacent areas that may alter natural water flow patterns
- Walk-in only access – no off-road vehicles